AMENDMENTS TO THE CLAIMS

Please enter the following amendments without prejudice or disclaimer.

This listing of claims will replace all prior versions, and listings, of claims in the application:

In the claims:

Claim 1 (Withdrawn): A polynucleotide comprising a sequence capable of hybridising selectively to

(a) SEQ ID NO: 1 or the complement thereof;

(b) a sequence from the 3.6 kb plasmid of *Propionibacterium freudenreichii* CBS 101022;

(c) a sequence from the 3.6 kb plasmid of *Propionibacterium freudenreichii* CBS 101023; or

(d) a sequence that encodes a polypeptide which comprises a SEQ. ID. No. 2 or 3, an amino acid sequence substantially homologous thereto or a fragment of either sequence.

Claim 2 (Withdrawn): A polynucleotide which is an autonomously replicating plasmid that can remain extrachromosomal inside a host cell, which plasmid is derived from an endogenous *Propionibacterium* plasmid, and when comprising a heterologous gene is capable of expressing that gene inside the host cell.

Claim 3 (Withdrawn): A polynucleotide according to claim 1 which is autonomously replicating in a host cell.

Claim 4 (Withdrawn): polynucleotide according to claim 3 in which the host cell is a *Propionibacterium*.

Claim 5 (Withdrawn): A polynucleotide according to claim 4 in which the *Propionibacterium* is *Propionibacterium freudenreichii*.

Claim 6 (Withdrawn): A polynucleotide according to claim 1 which is capable of selectively hybridising to one or more sequence (s) in SEQ ID No:1 which is (or are) necessary for autonomous replication in a *Propionibacterium.*

Claim 7 (Withdrawn): A polynucleotide according to claim 1 which comprises either the 1.7 kb fragment of SEQ. ID. No. 1 delineated by restriction sites SalI and AlwNI or nucleotides 1 to 1750 of SEQ. ID. No. 1.

Claim 8 (Withdrawn): A vector which comprises a polynucleotide according to claim 1.

Claim 9 (Withdrawn): A vector according to claim 8 which is a plasmid.

Claim 10 (Withdrawn): A vector according to claim 8 which additionally comprises a selectable marker.

Claim 11 (Withdrawn): A vector according to claim 8 which is autonomously replicating in *E. coli.*

Claim 12 (Withdrawn): A vector according to claim 8 which is an expression vector.

Claim 13 (Withdrawn): A vector according to claim 12 which comprises an endogenous gene of a Propionibacterium or a heterologous gene operatively linked to a control sequence which is capable of providing for expression of the gene.

Claim 14 (Withdrawn): A vector according to claim 13 in which the gene is the cobA gene.

Claim 15 (Withdrawn): A vector according to claim 13 in which the heterologous gene encodes a polypeptide which is therapeutic in a human or animal.

Claim 16 (Withdrawn): A polypeptide which comprises the sequence SEQ ID No: 2 or 3 or a sequence substantially homologous thereto, or a fragment of either said sequence, or is encoded by a polynucleotide as defined in claim 1.

Claim 17 (Withdrawn): A host cell comprising a heterogeneous polynucleotide or vector according to claim 1.

Claim 18 (Withdrawn): A host cell according to claim 17 which is a bacterium.

Claim 19 (Withdrawn): A host cell according to claim 18 which is a *Propionibacterium* or *E. coli*.

Claim 20 (Withdrawn): A process for producing a host cell according to comprising transforming or transfecting a host cell with a polynucleotide or vector according to claims 1.

Claim 21 (Withdrawn): A process for the preparation of a polypeptide, or other compound, the process comprising cultivating or fermenting a host cell as defined in claim 17 under conditions that allow expression or production of the polypeptide or compound.

Claim 22 (Withdrawn): A process according to claim 21 which is a fermentation process wherein the host cell is cultured in aerobic or anaerobic conditions.

Claim 23 (Withdrawn): A process according to claim 21 in which the expressed polypeptide or produced compound is recovered from the host cell.

Claim 24 (Withdrawn): A process according to claim 23 wherein the polypeptide is a protease, amylase, lipase or peptidase or the compound is vitamin B_{12}.

Claim 25 (Withdrawn): A process according to claim 21 where the polypeptide is secreted from the host cell.

Claim 26 (Withdrawn): A process according to claim 25 in which the polypeptide is expressed on the surface of the host cell and/or the polypeptide is an antigen or immunogen.

Claim 27 (Withdrawn): A polypeptide or compound prepared by a process according to claim 20.

Claim 28 (Currently Amended): A process for the production of vitamin B12 (cobalamin), the process comprising culturing a *Propionibacterium* host cell under conditions in which the vitamin is produced and, if necessary, isolating the vitamin, wherein the *Propionibacterium* host cell contains a polynucleotide comprising

(a) a sequence that is selected from the group consisting of:

[[~~(a)~~]] (i) SEQ ID NO: 1 or the complement thereof;

[[~~(b)~~]] (ii) a sequence from SEQ ID NO: 1 that corresponds to either the 1.7 kb fragment of SEQ ID NO: 1 delineated by restriction sites SalI and AlwNI or nucleotides 1 to 1800 of SEQ ID NO: 1; [[~~or~~]] and

[[~~(c)~~]] (iii) a sequence that is at least [[~~70%~~]] 95% homologous to a sequence as defined under [[~~(a)~~]] (i) or [[~~(b)~~]] (ii) over a region of at least 100 contiguous nucleotides and which retains the ability to autonomously replicate in *Propionibacterium*; and

(b) a sequence that is an endogenous gene of a *Propionibacterium* ~~involved in~~ belonging to the vitamin B_{12} biosynthesis pathway or a pathway directly linked to the vitamin B_{12} biosynthesis pathway operatively linked to a control sequence which is capable of providing for expression of the gene.

Claim 29 (Canceled)

Claim 30 (Withdrawn): A polypeptide according to claim 27 for use in a method of treating the human or animal body by therapy.

Claim 31 (Withdrawn): A host cell according to any one of claims 17 for use in a method of treating the human or animal body by therapy or for use in an animal feed.

Claim 32 (Withdrawn): Use of a host cell according to claim 17 to either make cheese or for use in cheesemaking.

Claim 33 (Withdrawn): Use of a host cell according to claim 17 in the manufacture of a foodstuff or in an animal feed.

Claim 34 (Withdrawn): A foodstuff comprising a polypeptide or compound according to claim 27.

Claim 35 (Withdrawn): A foodstuff according to claim 34 for consumption by humans (e. g. a cheese, sausage) or by an animal.

Claim 36 (Withdrawn): A process for manufacturing cheese or other fermented dairy product the process comprising using a host cell according to claim 17.

Claim 37 (Withdrawn): A process according to claim 36 wherein the host cell is used instead of or in addition to lactic acid bacteria.

Claim 38 (Withdrawn): A process according to claim 36 wherein the host cell is a *Propionibacterium* cell.

Claim 39 (Withdrawn): A host cell which can be transformed or transfected with a vector according to claim 13.

Claim 40 (Withdrawn): Use of a polypeptide or compound according to claim 27 to either make cheese or for use in cheesemaking.

Claim 41 (Withdrawn): Use of a polypeptide or compound according to claim 27 in the manufacture of a foodstuff or in an animal feed.

Claim 42 (Withdrawn): A foodstuff comprising a host cell according to claim 17.

Claim 43 (previously presented): A process according to claim 28, wherein the endogenous gene of a *Propionibacterium* is the *cobA* gene.

Claim 44 (previously presented): A process according to claim 28 wherein the polynucleotide comprises a vector.

Claim 45 (previously presented): A process according to claim 44 wherein the vector is a plasmid.

Claim 46 (previously presented): A process according to claim 28 wherein the polynucleotide comprises a selectable marker.

Claim 47 (previously presented): A process according to clam 28 wherein the polynucleotide is capable of autonomously replicating in *E. coli*.

Claim 48 (previously presented): A process according to claim 28 wherein the host cell is a *P. freudenreichii*, *P. jensenii*, *P. theonii* or *P. acidipropionic*i cell.

Claim 49 (previously presented): A process according to claim 28 wherein the vitamin B_{12} is isolated from the host cell or from the culture medium.

Claim 50 (new): A process according to claim 28 wherein the sequence of (iii) is at least 95% homologous to a sequence as defined under (i) or (ii) and which retains the ability to autonomously replicate in *Propionibacterium*.